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| <b>TRANSMITTAL LETTER TO THE UNITED STATES<br/>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br/>CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>   |   | ATTORNEY'S DOCKET NUMBER<br>30794.94USWO<br><br>U.S. APPLICATION NO. (if known) (see 37 CFR 1.5)<br><b>10/537385</b> |
| INTERNATIONAL APPLICATION NO.<br>PCT/US03/21916   | INTERNATIONAL FILING DATE<br>15 JULY 2003 | PRIORITY DATE CLAIMED<br>16 DEC 2002; 16 DEC 2002  |
| TITLE OF INVENTION<br>GROWTH OF PLANAR, NON-POLAR A-PLANE GALLIUM NITRIDE BY HYDRIDE<br>VAPOR PHASE EPITAXY   |   |  |
| APPLICANT(S) FOR DO/EO/US Benjamin A. Haskell, Paul T. Fini, Shigemasa Matsuda,<br>Michael D. Craven, Steven P. DenBaars, James S. Speck and Shuji Nakamura   |   |  |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:   |   |  |
| 1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.  |   |  |
| 2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.   |   |  |
| 3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.  |   |  |
| 4. <input checked="" type="checkbox"/> The US has been elected (Article 31).  |   |  |
| 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li> <li>c. <input checked="" type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ul>  |   |  |
| 6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> is attached hereto.</li> <li>b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ul>  |   |  |
| 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li> <li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li> </ul> |   |  |
| 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).   |   |  |
| 9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).   |   |  |
| 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).   |   |  |
| <b>Items 11 to 20 below concern document(s) or information included:</b>  |   |  |
| 11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.  |   |  |
| 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.  |   |  |
| 13. <input type="checkbox"/> A preliminary amendment.   |   |  |
| 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.   |   |  |
| 15. <input type="checkbox"/> A substitute specification.  |   |  |
| 16. <input type="checkbox"/> A power of attorney and/or change of address letter.   |   |  |
| 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.  |   |  |
| 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).  |   |  |
| 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).  |   |  |
| 20. <input type="checkbox"/> Other items or information:  |   |  |

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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|--|--------------|--|--|--|---------------------|
| <b>U.S. APPLICATION NO. (if known, see 37 CFR 1.5)</b><br><b>10/537385</b>   |              | <b>INTERNATIONAL APPLICATION NO.</b><br><b>PCT/US03/21916</b>                    |  | <b>ATTORNEY'S DOCKET NUMBER</b><br><b>30794.94USWO</b> |                     |
| The following fees have been submitted   |              |  |  | <b>CALCULATIONS</b>                                    | <b>PTO USE ONLY</b> |
| 21. <input checked="" type="checkbox"/> Basic national fee..... \$300  |              |  |  | \$ 300.00  |                     |
| 22. <input checked="" type="checkbox"/> Examination fee<br>If International preliminary examination report prepared by USPTO and all claims satisfy provisions of<br>PCT Article 33(1)-(4)..... \$100<br>All other situations..... \$200   |              |  |  | \$ 100.00  |                     |
| 23. <input checked="" type="checkbox"/> Search fee<br>Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an<br>International Searching Authority..... \$100<br>International Search Report prepared and provided to the Office..... \$400<br>All other situations..... \$500   |              |  |  | \$ 100.00  |                     |
| <b>TOTAL OF 21, 22 and 23 =</b>  |              |  |  | <b>\$ 500.00</b>                                       |                     |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding<br>sequence listing or computer program listing filed in an electronic medium).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof.   |              |  |  |  |                     |
| Total Sheets   | Extra Sheets | Number of each additional 50 or fraction<br>thereof (round up to a whole number) | RATE   |  |                     |
| - 100 =  | /50 =        |  | x \$250  | \$   |                     |
| Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest<br>claimed priority date (37 CFR 1.492(e)).  |              |  |  | \$   |                     |
| CLAIMS   | NUMBER FILED | NUMBER EXTRA   | RATE   | \$   |                     |
| Total claims   | 17 - 20 =    | -0-  | x \$ 50  | \$ -0-   |                     |
| Independent claims   | 1 - 3 =      | -0-  | x \$200  | \$ -0-   |                     |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)  |              |  | + \$360  | \$   |                     |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>   |              |  |  | <b>\$ 500.00</b>                                       |                     |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.   |              |  |  |  |                     |
| <b>SUBTOTAL =</b>  |              |  |  | <b>\$ 500.00</b>                                       |                     |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest<br>claimed priority date (37 CFR 1.492(f)).   |              |  |  | \$   |                     |
| <b>TOTAL NATIONAL FEE =</b>  |              |  |  | <b>\$ 500.00</b>                                       |                     |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied<br>by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property  |              |  |  | \$   |                     |
| <b>TOTAL FEES ENCLOSED =</b>   |              |  |  | <b>\$ 500.00</b>                                       |                     |
|  |              |  |  | <b>Amount to be<br/>refunded:</b>                      | \$                  |
|  |              |  |  | <b>Amount to be<br/>charged:</b>                       | \$                  |
| <p>a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed.</p> <p>b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>50-0494</u> in the amount of \$ <u>500.00</u> to cover the above fees.<br/>A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit t<br/>Account No. <u>50-0494</u>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not<br/>be included on this form. Provide credit card information and authorization on PTO-2038.</p> |              |  |  |  |                     |
| <p><b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed<br/>and granted to restore the International Application to pending status.</p>   |              |  |  |  |                     |
| <p>SEND ALL CORRESPONDENCE TO:<br/><b>CUSTOMER NUMBER 22462</b></p>  |              |  |  |  |                     |
| <p>GATES &amp; COOPER LLP<br/>Howard Hughes Center<br/>6701 Center Drive West, Suite 1050<br/>Los Angeles, CA 90045</p>  |              |  | <p style="text-align:center;"><br/>_____<br/>SIGNATURE<br/>George H. Gates<br/>_____<br/>NAME<br/>33,500<br/>_____<br/>REGISTRATION NUMBER</p> |  |                     |

10/537385

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Benjamin A. Haskell, Paul T. Fini, Shigemasa Matsuda, Michael D. Craven, Steven P. DenBaars, James S. Speck and Shuji Nakamura

Docket: 30794.94USWO

Title: GROWTH OF PLANAR, NON-POLAR A-PLANE GALLIUM NITRIDE BY HYDRIDE VAPOR PHASE EPITAXY

JC20 Rec'd PCT/PTO 03 JUN 2005

## CERTIFICATE OF MAILING UNDER 37 CFR 1.10

'Express Mail' mailing label number: EV 329956405 US

Date of Deposit: June 3, 2005

I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By: *Darlene Ross*  
Name: Darlene Ross

MAIL STOP PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Adjustment Date: 09/16/2005 WALVARAD  
06/09/2005 LLANDGRA 00000015 500494 10537385  
02 FC:2632 250.00 CR  
03 FC:2633 100.00 CR

Sir:

We are transmitting herewith the attached:

- ☒ Transmittal sheet, in duplicate, containing Certificate Of Mailing Under 37 CFR 1.10.
- ☒ Form PTO-1390: TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371.
- The fee has been calculated as shown below in the "Claims as Filed" table.
- ☒ Copy of signed Declaration of Inventorship, as filed in the International Application – 2 pages.
- ☒ A charge to Deposit Account in the amount of \$500.00 to cover the Total National Fee
- ☒ Return postcard.

## CLAIMS AS FILED

| Number of Claims Filed  | In Excess of: | Number Extra | Rate  | Fee      |
|---|---------------|--------------|---|----------|
| Basic Filing Fee<br>(Basic national fee +<br>Examination fee +<br>Search fee) |               |              |   | \$500.00 |
| Application Size Fee  |               |              |   | 0.00     |
| Total Claims  |               |              |   | 10537385 |
| 17  | 20            | =            | 09/16/2005 WALVARAD 00000004 500494 10537385<br>Sale Ref: 00000008 DA# 500494 10537385<br>01 FC:2641 50.00 DA | \$0.00   |
| Independent Claims  |               |              | 02 FC:2643 50.00 DA   |          |
| 1   | 3             | =            | 0 x \$200.00 =  | \$0.00   |
| MULTIPLE DEPENDENT CLAIM FEE  |               |              |   | \$0.00   |
| TOTAL NATIONAL FEE  |               |              |   | \$500.00 |

Please charge all fees to Deposit Account No. 50-0494. A duplicate of this sheet is enclosed.

Customer Number 22462

GATES &amp; COOPER LLP

Howard Hughes Center  
6701 Center Drive West, Suite 1050  
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By: *George H. Gates*  
Name: George H. Gates  
Reg. No.: 33,500  
Initials: GHG/dr

| FEE VALUE<br>ACCOUNTABILITY |                    |
|-----------------------------|--------------------|
| DEPOSIT ACCOUNT NO.         |                    |
| 50                          | 0494               |
| FEE<br>CODE                 | VALUE<br>PURCHASED |
| 0130                        | 250                |
| 2641                        | 50                 |
| 2633                        | 100                |
| 2643                        | 50                 |
|                             |                    |
|                             |                    |

(PTO TRANSMITTAL – NEW FILING)